#### DEPARTMENT OF TRANSPORTATION

DIVISION OF ENGINEERING SERVICES Office of Structural Materials Quality Assurance and Source Inspection

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Contract #: 04-0120F4

Cty: SF/ALA Rte: 80 PM: 13.2/13.9

File #: 74.28

## WELDING INSPECTION REPORT

Resident Engineer: Siegenthaler, Peter **Report No:** WIR-024064 Address: 333 Burma Road **Date Inspected:** 05-May-2011

City: Oakland, CA 94607

**OSM Arrival Time:** 900 **Project Name:** SAS Superstructure **OSM Departure Time:** 1745 **Prime Contractor:** American Bridge/Fluor Enterprises, a JV

Contractor: Goodwin Steel, UK **Location:** Trentham, UK

**CWI Name:** N/A **CWI Present:** Yes No **Inspected CWI report:** Yes N/A **Rod Oven in Use:** Yes No No N/A **Weld Procedures Followed:** Yes N/A N/A **Electrode to specification:** No Yes No Yes N/A Yes N/A **Qualified Welders:** No **Verified Joint Fit-up:** No N/A Yes No N/A **Approved Drawings:** Yes No **Approved WPS:** Yes No N/A **Delayed / Cancelled:** 

34-0006 **Bridge No: Component:** Cable Band

## **Summary of Items Observed:**

The following report is based on METS observations at Trentham UK on this date:

The cable band casting GG29438(2), 5540-B10-1-M was observed in the BTF-3 Machining center. The joint faces are being machined to remove 1 mm. This will bring the thickness of the joint flange to the lower tolerance and allow machining to remove additional material from the bore. Mr. Bentley indicates that this should allow the bore to be machined to comply with project specifications.

The QA Inspector observed set up and welding of Casting GG29434-2, Drawing Number 5540-B8-2-M. The welding was being performed by Mr. M. Edwards. Mr. Edwards was using WPS 04-0120F4B Issue 5. The welding was being performed at 197 amps. The filler metal was 5mm Babcock A2 E7018-1. The preheat was monitored with Tempil sticks. The QA Inspector observed Mr. Edwards verify that the preheat was in excess of 160 degrees. These are within the allowable range of the WPS.

The QA Inspector observed the cable band for West Panel Point 38 was observed at the Schiess Froriep vertical boring machine for machining of weld repair areas on the bore of the cable band. The machining is being performed by Goodwin International personnel.

Cable band casting GG29439-1 was observed after machining of the joint faces to remove 1mm. This was machined to allow additional material to be removed from the bore of the casting. The QA Inspector measured the width across the bolting flanges and noted that the width is 5mm less than the lower tolerance. The QA Inspector discussed this with Mr. A. Bentley, QC Director. Mr. Bentley indicates that an RFI will be generated to address

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this condition.

The QA inspector reviewed a copy of the Goodwin Steel Castings "Weld Excavation Map" for casting GG29439-1(R4), B10-1-F. The Weld Excavation Map was reviewed for accuracy and compliance with contract documents. This fifth repair cycle is a minor repair and does not require post weld heat treatment. Caltrans Lot Number B243-119-11 was assigned for tracking purposes.





### **Summary of Conversations:**

Relevant conversations are documented above.

### **Comments**

This report is for the purpose of determining conformance with the contract documents and is not for the purpose of making repair or fit for purpose recommendations. Should you require recommendations concerning repairs or remedial efforts please contact Nina Choy, (510) 385-5910, who represents the Office of Structural Materials for your project.

Inspected By:	Riegler,Randy	Quality Assurance Inspector
Reviewed By:	Edmondson,Fred	QA Reviewer